



California's Health

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HEALTH PROBLEMS IN STATE RELATED TO POPULATION GROWTH AND MOVEMENTS*

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The U. S. Census Bureau estimate of July 1, 1954, gave California a population of 12,554,000. This was an increase of nearly 2,000,000 since the 1950 census was taken and more than \$5,600,000 since 1940. It represents an average gain in excess of 400,000 per year. In numbers of people, this is equivalent to the creation of four new cities the size of Fresno and a new Bakersfield for good measure every year for the past 14 years. Great as was the movement to California during the 1940's, it has accelerated in the 1950's, bringing us close to half a million new residents every year in the past four. If growth continues at the present rate, a population of 15,000,000 is in prospect before the end of the present decade.

Problems of an Expanding Population

Obviously, so vast and rapid an expansion of the population must bring problems. Not only must thousands of new jobs be created every month, but the new people must have houses, schools, roads, and facilities and services of all kinds. If anyone wishes, quickly but not too inaccurately, to estimate the various needs created in a single year by our growing population, let him merely divide 500,000 by whatever ratios seem to him reasonable or desirable. For example, if 800 people to each physician is a reasonable standard (and before the war we had more than that many doctors in California), then we need over

600 new doctors in California every year *in addition* to replacements for those who die, retire, or enter military service. If 4.5 hospital beds per 1,000 people are about right, we need more than 2,000 additional hospital beds in California every year. In 1950, each California dwelling unit was occupied, on the average, by 2.7 persons. To maintain that standard, we must build 180,000 new dwellings every year in addition to replacing those torn down because no longer suited for occupancy or to make way for new uses of the land. This kind of arithmetic could be extended indefinitely to provide a formidable inventory of needs in every department of our common life. And be it noted that new facilities of this order of magnitude must be provided just to keep our community head above water, without thought of improvements.

The Factor of Time

All these things are being provided, but inevitably there are time lags, often painfully, expensively, and unnecessarily long. Furthermore, new structures, new organizations, new systems do not come magically into existence in response to a need. They must be created by human beings, and that means by study, organization, planning, and action. It is one of the great strengths of our social system that the power to make necessary decisions is widely distributed. A society with all planning centralized at the top could surely not solve such problems as California faces without incalculable human suffering. But, sometimes, in our demo-

catic way of doing things, the necessary action to solve problems seems a long time coming. I take it that is the reason our conference is convened here today—to study the problems in the field of health, particularly rural health, and jointly to consider how best to speed up the processes of planning and action to meet our common problems which grow, day by day.

To think intelligently about community health problems, it is obvious that we must consider not merely the gross numbers of people, but the make-up of the population in regard to sex, age, race, and other relevant characteristics, and its distribution geographically and among communities of varying size and character. In the recent past, far reaching changes have occurred in the composition and distribution of the California population as well as in its total size.

Distribution of Population

The distribution of population among the counties of California, with few exceptions, has changed little since 1940. One county (Contra Costa) nearly tripled in population between 1940 and 1950; three others (San Diego, San Mateo, and Solano) approximately doubled. At the other extreme, four mountain counties actually lost population during the decade and several others gained only slightly. The large majority of California counties, however, participated in the general upsurge of population, at rates varying from 25 to 75 percent. The statewide increase was 53 percent. When viewed from the standpoint of major geographic divi-

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sions, the population distribution pattern appears very similar to that of 1940. The eight counties south of the Tehachapis contained slightly less than 54 percent of the State's population in 1940 and nearly the same proportion in 1950. The San Joaquin Valley counties had 11 percent of the State population both in 1940 and in 1950. The eight metropolitan areas (14 counties) accounted for 80 percent of the California population in 1940 and 79 percent in 1950.

The "Urban Fringe"

Although not many significant changes have occurred in the county distribution of population, very important changes have been occurring within counties. An outstanding trend of the past quarter of a century has been the movement of people to the suburbs of the larger cities—a movement which is transforming the very nature of the city. From a relatively compact and well-defined concentration of population, the modern city has become a complex of urban life and activities spread over a wide area. This development has given rise to the phenomenon of the "urban fringe" with many attendant problems. In recognition of the changing character of the city, the U. S. Census Bureau in 1950 adopted a new definition of "urban." Formerly, the census counted as urban only the residents of incorporated places containing 2,500 or more inhabitants. A few unincorporated places were brought into the urban category under special rules. But with rare exceptions, people living outside the corporate city limits were considered rural. In 1950, however, around every city of 50,000 or more inhabitants, the census defined an "urbanized area" corresponding to the actual extent of thickly settled territory. All residents within this zone are classified as urban which corresponds to the economic and social reality. Also considered urban are the residents of all places outside the urbanized areas which have 2,500 or more inhabitants, whether incorporated or not.

According to the new definition, the population of California in 1950 was more than 80 percent urban. More than two-thirds of all Californians resided within the eight urbanized areas of Los Angeles, San Fran-

cisco and Oakland, San Diego, Sacramento, San Jose, San Bernardino, Fresno, and Stockton. The distribution of the populations within these urbanized areas deserves special attention. The central cities contained only about half of the area populations. Other incorporated towns accounted for a third. But more than one person in six, exceeding 1,200,000 people, lived outside the limits of any incorporated place. This is one measure of the famous "urban fringe" problem. It is an insufficient measure because it is limited to the eight urbanized areas, although virtually every city in the State has its suburban fringe. One thinks, for example of the extensive fringe settlements around Bakersfield, Marysville, Salinas, and others. It should be borne in mind that these dwellers in the urban fringe, whose number is now, in 1955, probably not less than 2,000,000 are not open-country residents placed in an urban category through some technicality. They are genuinely urban. Yet because they live outside the limits of any legally constituted city, they do not have access, except by special and nearly always partial arrangement, to the normal urban services. How to provide necessary public services to the unincorporated urban areas has raised serious problems of local government which are being debated in the Legislature and throughout the State.

Lack of Regulation

One aspect of the governmental problem in unincorporated areas, of particular importance from a health standpoint, is the inadequacy or lack of regulatory machinery touching such matters as land use, building construction, drainage, water supply, and sanitation. The lack of such controls, considered indispensable in modern cities, is at best a serious handicap to sound community development; at worst, it has permitted the development of a new type of slum—the rural or suburban "shacktown." These shacktowns, which number in the hundreds throughout California, present some of the most grievous examples of unhealthy living to be found anywhere in the State. This situation is not new. Housing inspectors and health officers, among others, have for years decried the

evils of the shacktowns. Yet, through failure to extend appropriate planning and regulatory machinery to unincorporated areas, the rural slum problem has grown and continues to grow to ever larger dimensions.

Nature of Rural Population

The rural population enumerated in 1950 corresponds more closely than before to what we are accustomed to think of as rural, namely, persons living in villages and in open country. Still included in the rural category, however, are the fringe dwellers around cities of less than 50,000 inhabitants outside the urbanized areas. The size of this latter group is not precisely known, but unquestionably it numbered not less than a quarter of a million people in 1950.

As defined, the rural population of California in 1950 included somewhat more than 2,000,000 people, or about one-fifth of the State total. Because of the change in definition, it is not possible to measure the increase in rural population between 1940 and 1950, but there is no doubt that the growth was very substantial. Even under the restricted definition of 1950, the rural population was larger than it was in 1940 under a much broader definition. Rapid population growth in the rural areas is also indicated by the rate of new housing construction. Nearly half of the total supply of rural nonfarm dwelling units existing in 1950 were built during the 1940's; more than a third were built in 1945 or later. In the postwar period up to 1950, well over one-fourth of all new dwelling units in California were built in rural areas although the rural population represented no more than a fifth of the State total. Evidently, the rural population has been growing more rapidly than the urban in recent years although it is possible that a considerable part of the new rural housing may have been built to replace older, inadequate structures.

All of the growth in the rural population since 1940 has occurred in the nonfarm sector. The farm population has been declining in California as in the rest of the United States. In 1950 there were 50,000 fewer people living on California farms than in 1940, a decrease of about 8 percent. Nearly three-fourths of the per-

sons counted as rural in the 1950 census were not living on farms. Nor were they engaged primarily in agriculture, at least not directly. Wholesale and retail trade was the largest industrial grouping of rural nonfarm workers, followed by manufacturing, with agriculture in third place. Only one rural nonfarm worker in seven was employed in agriculture. Thus, the industry distribution of rural nonfarm workers is closer to the urban than to the farm pattern.

In respect to occupations, the rural nonfarm population is distinctive in its high proportion of laborers. The long-run trend toward occupational up-grading of the working population had, by 1950, reduced the number of urban manual laborers to less than 7 percent of the total. In contrast, fully one-fifth of the rural nonfarm workers and one-third of the employed farm residents were laborers. Skilled and semiskilled manual workers were also more numerous in the rural nonfarm than in the urban population.

Lower Level of Living

The relative prominence of poorly remunerated and less prestigious occupations in rural territory as compared with the urban suggests greater frequency of low levels of living and this is borne out by other data. Insofar as health must be purchased in the form of medical service, adequate housing, good diets and so forth, the rural population appears distinctly less able to meet its needs than are the city dwellers. Median family incomes in 1950 were \$2,765 for California farm families, \$3,125 for the rural nonfarm group, and \$3,705 in California cities. The rural nonfarm family receives, on the average, about \$50 a month and the rural farm family about \$78 per month less than their urban counterparts. Yet on these smaller incomes, they support more children. In 1950, each 100 rural adults under 65, both farm and nonfarm, were supporting on the average 51 children under 15. Each 100 urban adults under 65, however, were rearing only 38 children.

More Congested Living

Another soundly based and generally accepted index of welfare is the quality of housing. Here, again, the

rural situation in California appears inferior to the urban. To begin with, rural nonfarm houses are smaller than urban dwellings. The typical rural nonfarm dwelling in California contains four rooms or less whereas the five-room house is the most common urban size and the urban average comes to 4.4 rooms per dwelling. It will be borne in mind that the smaller rural dwellings are occupied by families that are larger than the average urban family. Hence arises the striking result that the people of the spacious countryside actually live in more congested quarters than the inhabitants of the crowded cities!

A building in reasonably good condition, hot running water, and a flush toilet and bath are nowadays widely regarded as basic essentials of housing conforming to the American standard of living. This standard was met, in 1950, by 90 percent of the urban dwellings in California, but only 69 percent of the rural nonfarm dwellings came up to it. Nearly a third were lacking at least one of these essentials. This extent of basic deficiencies is the more striking in view of the fact, as previously noted, that almost half of the rural nonfarm houses existing in 1950 were less than 10 years old. It is difficult to escape the conclusion that much of the new housing built in California rural areas in recent years has been substandard from the beginning.

Educational Level

The educational level of a population is recognized as intimately connected with welfare and health. Here again, striking differences appear between California urban and rural populations. Of the urban adults over 25 years of age in 1950, nearly half had finished high school, as compared with only a third of the rural adults. One in five of the urban adults but only one in seven of the rural had attended college.

We are accustomed in this Country to value education as a major instrument for individual and social progress. From this point of view, it is disturbing that the educational deficiencies of the adult rural population are being perpetuated in the present generation of school-age children. At every age level from five years up, the proportion of children

attending school is smaller in the rural areas than in the California cities. Compulsory attendance laws keep the differences slight through the elementary grades. After age 15, however, the school attendance of rural nonfarm children drops abruptly. At the 18 and 19 year ages, 40 percent of urban children are still in school as are also farm children to a slightly less extent. But more than three-fourths of the rural nonfarm children have at this point dropped out of school.

Changing Age Composition

Another factor of profound significance for community health needs is the changing age composition of the population. The progress of medical science has notably lengthened the average span of life, mainly through conquest of infant mortality and the infectious diseases. The increasing ability of people to survive the life risks of childhood and early maturity entails, obviously, the enlargement of those groups subject to the health risks characteristic of the later years. These are the so-called "degenerative" and chronic diseases—cancer, heart disease, and the like. The fundamental reasons for the growing prominence of diseases of this sort are first, the medical conquest of their infectious competitors, and second, the increasing accumulation of older persons in the population.

In the past 50 years, while the general population of California has increased seven-fold, the number of those over 45 has increased nearly 10-fold and of those 65 or older, almost 12 times. The proportion of the population over 45 advanced from 22 percent in 1900 to 30 percent in 1950. Perhaps it should be pointed out here that this phenomenon is not a result of any large migration of older people to California, seeking the gentle climate or generous pensions. Rather, it reflects the survival of those who migrated to California as young people.

Disease Trends

The near elimination of mortality from infectious diseases and the aging trend of population are altering the impact and the nature of health problems. For some years, the diseases characteristic of middle and old age have been the main cause of death

in the population at large. In the future it is likely that the chronic and degenerative illnesses will move increasingly to the forefront of attention in matters of health.

Expansion of Infant Population

A partial qualification of the foregoing remarks is suggested by the even more dramatic population changes which have been occurring at the younger end of the age range. Prior to World War II, the long-run decline of the birth rate was reflected in smaller proportions of children in the population at each succeeding census. This was the other side of the coin of the aging trend. In the mid-1930's, however, the birth rate ceased to decline and turned upward. The early phase of World War II brought a sudden rise in marriages and births; the postwar period witnessed an upsurge in the birth rate unprecedented in decades. The historic declining trend in relative numbers of children was abruptly reversed in the decade of the forties. In California, children under five increased by 142 percent compared to the general population increase of 53 percent. In 1950, children under five made up more than one-tenth of the population of the State. Not since 1880 had the census observed a higher proportion of young children.

This sudden expansion of the infant population has thrown a severe strain on facilities for the health care of mothers and children. Although medicine has powerful resources of scientific knowledge for combating the illnesses of pregnancy and childhood, expectant mothers and young children in many areas are not receiving the full benefits of this knowledge for lack of medical personnel and facilities to apply it.

The explanation of the birth rate upsurge in terms of war-caused acceleration or postponement of normal marriages and births has grown less and less tenable as years have passed and the birth rate has continued at a high level. The reasons are mysterious, but we seem to be confronted with a profound change in the attitudes of people toward marriage and family life. People nowadays are marrying younger than ever before and they are having more children than their parents had. The rise in the

birth rate has arrested the relative aging of the population, at least for the time being, although the older age groups will continue to grow in absolute magnitude. But with nearly one-fifth of our population composed of children under ten years of age, it is clear that concern for children must continue to hold a central place in our planning for health and welfare.

Conclusion

This brief summary of outstanding population movements and their health implications has aimed to call attention to the need for massive expansion of resources for health, and for modernization of local government if we are to keep up with the demands imposed by a rapidly changing population. We can fall short of meeting these needs but only at the cost of lowering our standards of family and community living, particularly our standard of health.

Public Health Positions

City of Los Angeles

Public Health Educator: The Los Angeles City Health Department has announced a competitive examination to fill three public health educator positions. Final filing date is March 31, 1955, and the written examination will be held April 16, 1955, in Los Angeles and such other places as may be required. Salary range is \$440 to \$545. Applicants must have completed one year of graduate study in public health education in an accredited school of public health and have one year of professional experience in public health education or health journalism at the editor level, or an equivalent combination of training and experience. For further information write Los Angeles City Civil Service Department, Room 5, Los Angeles City Hall.

Humboldt-Del Norte County

Nursing Director, Humboldt-Del Norte County Department of Public Health: Beginning salary, \$400. Eligibility for California Registration and Public Health certificate are required. Applicants must hold B.S. degree and have experience as a nursing supervisor. Car is furnished.

Staff Public Health Nurses: Two positions are open. Beginning salary, \$332 to well qualified nurses. Eligibility for registration and public health nursing certificate required.

Further information on the above positions may be obtained by writing to John A. Carswell, M.D., Health Officer, P. O. Box 857, Eureka.

Napa County

Staff Sanitarian: Newly created position with Napa County Department of Public Health. Salary range, \$315 to \$383. Starting salary up to \$348, depending on experience.

Own car required, but mileage allowed. Contact E. R. Pinckney, M.D., Director of Public Health, P. O. Box 749, Napa.

San Benito County

Laboratory Director: To do both clinical and public health laboratory work. Must be eligible for California license as both clinical technician and public health bacteriologist. Salary open. Apply: Roswell L. Hull, M.D., Director, San Benito County Health Department, Health Center, Hollister.

State of California

Physical Therapist for Physically Handicapped Children: Salary, \$341 to \$415. California residence not required. Final date for filing, April 7th. Examination date, April 28th. Requires one year of supervised experience in physical therapy following graduation from a recognized school of physical therapy.

Placer County

Director of Public Health Nursing: Salary range, \$3900 to \$4740 per annum. Experienced person may start above minimum. For further information write Ruth M. Moldenhauer, M.D., Director of Public Health, Placer County Health Department, Auburn.

San Benito County

Staff Nurses: Salary, \$341 to \$376. Public health nursing degree and experience required. Apply to Roswell L. Hull, M.D., Director, San Benito County Health Department, Health Center, Hollister.

More fatal traffic accidents occur between the hours of 5 and 8 p.m. than during any other time of the day.

No subject is more intimately connected with the happiness and prosperity of a people than the degree of public health that they enjoy.—Lemuel Shattuck.

CHANGE OF ADDRESS

On and after March 28, 1955, all divisions, bureaus, services and Laboratories of the California State Department of Public Health should be addressed at 2151 Berkeley Way, Berkeley 4, California. Telephone (all units) TH ornwall 3-7900.

This applies to all headquarters units of the department except the Section of Vital Records which remains at 631 J Street, Sacramento 14, California. Telephone GI libert 2-4711, Extension 2264.

Air Pollution Study Project Makes Initial Report to Governor

A preliminary report on air pollution in California was submitted March 1st to Governor Goodwin J. Knight by Malcolm H. Merrill, M.D., State Director of Public Health. The report summarizes findings and recommendations of the department's Air Pollution Study Project, which was established in October at Governor Knight's request to delve into the State's air pollution problems. An emergency allocation of \$100,000 was set aside to conduct the study through the current fiscal year. Dr. Merrill named a 12-member study team composed of physicians, engineers, statisticians and consultants to conduct the preliminary study into the nature, extent and sources of air pollution, its short- and long-term effects upon health and environment, and the legislative aspects. Lester Breslow, M.D., was temporarily relieved of his duties as chief of the Bureau of Chronic Diseases to head the study.

The report recommends a state program which would include studies to determine the effects of air pollution on health, the determination of the effects of air pollution upon plant and animal life, the determination of factors responsible for air pollution, the measurement of air pollutants, the development of means of control of air pollution, and assistance to local agencies in initiating this program. It also urges clarification and strengthening of state statutes regarding air pollution and recommends that local government form air pollution control regions which follow topography of the land and wind movement, not political boundaries.

Copies of the report have been distributed to local health officers and a number of groups concerned with air pollution. Additional copies are available from the Department.

Findings and recommendations of the department are summarized in the report in the section "A Plan for Action" as follows:

Findings and Conclusions

1 Like other industrialized and heavily populated sections of the world, California now faces air pollution as a major environmental health problem. Although most severe in the Los Angeles Basin, it

occurs in each of the State's metropolitan communities and in many of its rural areas.

- 2 Air pollution arises from a variety of man-made sources, including industry motor vehicle usage and incineration of domestic and other refuse. Natural phenomena, including topography, sunlight, temperature inversions and lack of wind, alter and concentrate the pollutants and thus increase their effects.
- 3 No systematic body of state-wide data exists to indicate the extent of air pollution in California today. Additional reliable methods of measurement are needed, and those available are not widely enough used.
- 4 Air pollution in several parts of the world has caused sudden death to substantial numbers of persons, and long-term effects which ultimately resulted in death to others.
- 5 The paramount public interest in air pollution concerns its effect on health, in its broadest sense. The health effects of air pollution upon the people of California as revealed by the preliminary findings of the State Department of Public Health may be summarized as follows:
 - a Irritation to mucous membranes of the eyes and the respiratory tract is reported by Los Angeles physicians. Patients with asthma, hay fever and chronic respiratory diseases suffer especially in smog periods.
 - b Atmospheric pollution exerts an adverse effect upon Los Angeles school children as evidenced by reports of eye irritation, decreased attentiveness, efficiency and increased disciplinary problems during smog periods.
 - c Available data based on crude measurements provide no evidence that air pollution during the August through November 1954 smog season in Los Angeles produced illness of sufficient severity to be measured by a general household sickness survey. Nor did it seem to result in increased absenteeism from employment, nor influence the number and type of hospital admissions.
 - d During the four-month period no measurable increase that can be attributed to atmospheric pollution was noted in death rates in Los Angeles or elsewhere in California. Periods of smog in Los Angeles during August through November 1954 had no apparent influence on death rates of infants, or of persons over 65 years of age. The only exception noted to the observation above was some slight but not convincing data suggesting that air pollution in Los Angeles during the 1954 smog season may have been a contributing factor to mortality of a limited number of chronically ill patients in nursing homes.
 - e Nevertheless, as determined by opinion both medical and nonmedical, by evidence from disastrous occurrences elsewhere, and limited data available from California experience, air pollution poses a significant public health problem and one requiring further investigation in this State because of its:
 1. Obvious immediate interference with the physical, mental and social well-being of the people of California
 2. Possible, but as yet undetermined, cumulative adverse effects upon health.
 3. Disaster-making potential, should pollution concentration build up in any area
- f Present evidence is insufficient to estimate how close air pollution in California has approached disaster levels, or to determine whether serious, long-term effects on human health are already occurring.
- 6 Attention has focused on the air pollution problem in the Los Angeles area where eye irritation, plant damage and other harmful effects such as discomfort, decreased visibility and nuisance occur most frequently. Several ideas have been advanced as to the nature and sources of air pollutants responsible for these effects. According to the most generally accepted current explanation, the effects are due mainly to substances formed in the atmosphere by the inter-reaction of pollutants. These pollutants arise from the combustion of petroleum products for heat, power and automotive transportation; the combustion of natural gas from the production, refining and distribution of petroleum products; and from the combustion of rubbish. Other industrial emissions of great variety but less quantity individually, await evaluation and require early attention.
- 7 Although backed by considerable evidence and scientific opinion, this explanation needs further validation if it is to serve as the basis of large-scale control efforts with assurance to the public that relief will thus be attained.
- 8 While control authorities in Los Angeles are attacking the obvious sources of pollution with some success, control efforts have not yet succeeded in removing the eye-irritating quality from the atmosphere, the major basis of citizen complaint. In popular judgment at least, the situation is not improving. The present approach to control, however, has sufficient scientific support to justify the steps being taken and planned.
- 9 Control should not await the demonstration of severe health effects. Pollution should be controlled whether or not a severe health effect has been demonstrated.
- 10 Other urban areas of the State now have air pollution in sufficient degree to justify the start of comprehensive control programs. Many rural areas have local problems deserving attention.
- 11 Limiting factors to air pollution control in California include:
 - a Incomplete knowledge as to the nature, sources and effects of air pollution.
 - b Insufficient evidence as to the net adverse effect upon human health and especially as to which of the compo-

- nents of air pollution are potentially injurious.
- c Lack of available remedies for some known sources of pollution, for example, exhaust from automobiles.
 - d A natural reluctance on the part of government, industry, and the public to spend sufficient money for air pollution control measures now available or be subject to regulation by them.
 - e Lack of coordinated state-wide leadership in attacking the problem and interpreting it to the public in a manner that will command public confidence.
- 10 California statutes regarding air pollution need clarification, unification and strengthening, and the areas of responsibility on the part of public officials should be clearly defined.

Recommendations

Based on its initial review of the body of knowledge presently available about the growing problem of polluted air, the State Department of Public Health recommends:

That the State

- 1 Recognize air pollution in all its facets as a matter of state concern, with its health aspects paramount.
- 2 Designate the agency or agencies in State Government to exercise the State's responsibilities in this field.
- 3 Establish a program to keep itself and the public informed as to the nature, extent, effects and remedies of air pollution throughout the State. This program should include:
 - a Continuing surveillance to determine the effects of air pollution on health
 - b The determination of the effects of air pollution upon plant and animal life
 - c The determination of factors responsible for air pollution
 - d The measurement of air pollutants
 - e The development of means of control of air pollution
 - f The establishment of laboratory services
 - g Assistance to local agencies in implementing this program
- 4 Support research into all aspects of air pollution.
- 5 Assist local governmental agencies to establish and maintain air pollution control programs by providing:
 - a Machinery for regional development and administration of control programs, based upon considerations of natural topography and air movement, encompassing several counties or parts of counties as necessary
 - b Scientific data, technical advice and consultation to governmental and other agencies concerned with air pollution control
 - c Compliance of state and local governmentally controlled buildings and other facilities with local air pollution control rules and regulations
- 6 Prepare a plan, in cooperation with local authorities for emergency action to cope with any immediate serious danger to

the public health that may arise from air pollution

- 7 Coordinate its efforts with those of federal and local governmental and private agencies seeking to assess and solve the problem.
- 8 Recognize the need for immediate analysis and continuing study of the law, and for necessary legislation to adequately facilitate the program outlined above.
- 9 Recognize the following areas of responsibilities:

That of local governmental authorities to:

- a Establish air pollution control programs where needed, particularly throughout the three major metropolitan areas of the State.
- b Support and where necessary increase the tempo of present air pollution control programs.
- c Continue efforts to improve methods of scientific measurement of air pollutants and their effects, especially on human health.
- d Use data collected through such scientific measurement as the basis for planning and evaluating control measures.
- e Coordinate day to day air pollution control efforts with long range city and county planning and zoning.
- f Keep the public informed of developments in all aspects of local air pollution.

That of universities and other research organizations to:

- a Accelerate and publicize research into the nature, effects and means of control of air pollution.

That of industry to:

- a Support efforts to evaluate and control air pollution.
- b Consider air pollution factors in seeking locations for any new plant installations.
- c Use the most modern knowledge in the design and operation of plants so as to minimize air pollution.
- d Develop and incorporate control measures into products that may be sources of air pollution (motor vehicles, boilers, home heating systems, incinerators and the like).

That of the public to:

- a Be informed and continue its interest in air pollution as a stimulus to and support of the authorities responsible for air pollution control measures.
- b Cooperate with control authorities to minimize pollutants from individual households.

Accidents in the home are responsible for more deaths and injuries than any other accident classification; more than 30,000 people are killed and more than 5,000,000 injured every year in home accidents.—*Home Safety Review*.

Advisory Hospital Council Considers Expanded Construction Program

The State Department of Public Health and its Advisory Hospital Council held a public hearing January 14th in Los Angeles to review and consider the expanded Federal Hospital Construction Program. The program makes available additional assistance to the State for construction of hospitals and nursing homes for chronically ill patients, out-patient departments of hospitals and rehabilitation centers. It also provides funds to assist the State in survey and planning to meet the needs for these facilities.

Assembly Bill No. 146, now before the State Legislature, proposes California's participation in the expanded federal program.

The department has initiated a preliminary survey of existing facilities and services to obtain information related to consideration of the proposed program. In general, the expanded program maintains the basic organization and policies for administration of the Hospital Survey and Construction Program established in California by state legislation of 1947.

The Advisory Hospital Council recommended that the department distribute widely the information on the proposed program and solicit comment and suggestions from interested agencies and individuals regarding needs and development of services for additional facilities in California.

Home Health Education Program Developed by CME

Junior students in the School of Medicine at the College of Medical Evangelists are participating in a home health education program in Baldwin Park, California. Under the direction of Dr. Harold Mozar, head of the Department of Public Health and Preventive Medicine, the students will aid in education of families in the principles of home nursing, medical care, cooking, and other aspects of healthful living. Practicing physicians in the area are cooperating by referring families in need of health instruction to the Family Health Education Center.

Harold F. Gray, Pioneer Mosquito Control Expert, Retired March 1st

Harold Farnsworth Gray, for the past 25 years engineer-manager of the Alameda County Mosquito Abatement District, and a former health officer of Palo Alto, retired from his long and distinguished public career



Harold F. Gray

March 1st. He plans to retire to a ranch near Oroville, Butte County, an area where he conducted some of his first mosquito control work back in 1910-1911 as a co-worker of the late Professor William B. Herms.

Except for two or three brief interludes, Mr. Gray has devoted his career to public service. A native San Franciscan, he graduated in 1907 as a sanitary engineer from the old College of Civil Engineering. After three years on water development projects, including the Los Angeles aqueduct, he returned in 1910 to the University of California for graduate study in engineering. His association there as an understudy of Professor Herms marked the turning point in his career that led to pioneering work in California mosquito control and to public health.

In the summer of 1910 Professor Herms and Mr. Gray carried out a miraculously successful malaria control demonstration by reducing the *Anopheles* mosquito population in an area of Placer County. At that time

SAN FRANCISCO DEDICATES DISTRICT HEALTH CENTER



SUNSET HEALTH CENTER, SAN FRANCISCO

San Francisco's newest district health center, and the first one to have a full-time district health officer, held its formal opening February 16th. The new center, located at 41st and Pacheco in the Sunset District, serves a population of about 120,000, 15 percent of the city's population. The center is a one-story structure of functional modern design with 11 rooms and about 4,500 square feet of floor space. It was constructed for about \$100,000 with funds provided through the city budget. Margaret J. Miller, M.D., is the district health officer under Ellis D. Sax, M.D., Director of the San Francisco Department of Public Health.



**MARGARET J. MILLER, M.D.
Sunset District Health Officer**

some areas of the Sacramento and San Joaquin Valleys had higher malaria rates than the southern states.

The Placer County operation made history as the first attempt in the West to control malaria through mosquito abatement. The project has been described as the first adequate demonstration in the world of actual control, although similar procedures had been initiated and some progress made earlier on Long Island and in Brookline, Massachusetts.

In 1913 Mr. Gray became health officer for the City of Palo Alto, building a model department that established a nation-wide reputation

Opening of the new unit marks the first step in the San Francisco department's long-term objective of providing decentralized units directed by district health officers. It is anticipated that about six such centers will be required. While the San Francisco department has 10 local health centers, all but the new Sunset center are chiefly district offices for nurses serving the local area. The Sunset Health Center, in addition to a staff of 15 nurses, has sanitarians, an epidemiologist, part-time school and child health conference physicians, part-time mental hygiene personnel and clerical staff under direction of the district health officer.

The Sunset Health Center is part of a new 10-block Sunset Community Development Project, which also includes a recreation area, an elementary school and a junior high school. Plans call for eventual construction of a library and senior high school. Eight years of planning and work preceded actual completion of the new health center and its formal opening in February.

Dr. Miller is a 1943 graduate of the University of California. She obtained her medical degree in 1949 from the University of Nebraska and interned at the San Francisco County Hospital. From 1950-54 she was school physician for the San Francisco Department of Public Health, returning to the University of California to earn her M.P.H. degree from the School of Public Health in 1954.

for progress and efficiency. In 1916 he was enticed to San Jose, where he completely reorganized the health department, including the development of laboratory and public health nursing services.

In 1917, when the State Board of Health was reorganized and set up six areas of administration, Mr. Gray was appointed District State Health Officer for the 17-county district from Sacramento north, a position he held until 1919, when he left state service to join the Rockefeller Foundation. He later served as Chief of the Division of Sanitary Engineering, New Mexico State Department of Public

Health, and, in 1924, returned to Berkeley as a consulting engineer. In 1927 he became a member of the commission to study the drainage and sewage disposal problems of Oakland. This led to membership in the Board of Engineers which made the final studies that resulted in the clean-up of the East Bay shoreline.

Mr. Gray became engineer-manager of the Alameda County Mosquito Abatement District in 1930, a position he has held up to his retirement from one of the longest careers in organized mosquito control work in the State. He has gained recognition as a lecturer in public health at the University of California, a position he held soon after returning to Berkeley in 1927 until compulsory retirement from the University in 1952.

Mr. Gray is also widely known for his professional affiliations, including the office of Secretary of the Western Branch, American Public Health Association, which he held for many years, and the editorship of *Western Public Health*, journal of the Western Branch.

Public Health Service to Recruit 5,000 Reserve Officers

Surgeon General Leonard A. Scheele, U. S. Public Health Service, has announced an expansion program for the Service's Commissioned Corps, with a goal of adding 2,000 officers by the end of Fiscal Year 1955, and an additional 3,000 by the end of Fiscal Year 1956. The expansion program is designed to build up inactive reserves of physicians, engineers, nurses and other professional personnel for service in the event of national emergency.

The Public Health Service points out that actual attack on the United States with existing nuclear devices

and other special weapons would demand such immediate counter-measures that there would not be time for the recruitment, selection and training of qualified individuals, and hence, it is essential that an adequate pool of inactive reserve officers be provided to insure accomplishment of our civil service obligations, and the continuation of essential functions.

The inactive reserve officers, selected on the basis of professional skills and competencies anticipated as needed during a national emergency, will be appointed with the understanding that they will serve as and where the needs of the service dictate.

Certain civil defense activities, delegated to the U. S. Department of Health, Education and Welfare by the Federal Civil Defense Administration, have been assigned to the Public Health Service. These are: (1) conduct of research, with respect to, and detection, identification and control of communicable diseases in humans; biological and chemical warfare against humans, and other public health hazards, (2) development of a national program for emergency restoration of essential community health facilities, and (3) provision of Public Health Service Reserve Corps professional personnel from support areas to those damaged by enemy attack.

Of the 2,000 quota for Fiscal Year 1955, active duty training will be given to 60 officers. Thereafter, the training program will be accelerated until 500 inactive status officers are given training each year.

Existing training sources of the Public Health Service will be used extensively in this program. Plans are also being developed to take training to the officers' home locations. Training centers may be established in large metropolitan areas where there is a sizable group of inactive reserve

officers willing to fulfill active duty training by attending evening sessions. A study of the kinds of health problems likely to be encountered in an attack on this Country will dictate the content of the training courses, as well as the professional categories that will be needed for this program.

GOODWIN J. KNIGHT, Governor
MALCOLM H. MERRILL, M.D., M.P.H.
State Director of Public Health

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